

WHAT IS CLAIMED IS:

1. A bag manufacturing and packaging apparatus, comprising
a bag manufacturing unit that manufactures a bag filled with articles;
a feed roller unit that feeds out a strip with a bend imparted in a transverse
5 cross section of the strip, the strip being narrower than the bag, the transverse cross
section intersecting a transport pathway in which the strip is fed out; and
a mounting unit that receives the bag from said bag manufacturing unit and the
strip fed by said feed roller unit and mounts the bag to the strip, the strip being
rectilinearly maintained between said feed roller unit and said mounting unit.
10
2. The bag manufacturing and packaging apparatus as recited in Claim 1,
wherein
the bend imparted in the transverse cross section of the strip is a curvature.
- 15 3. The bag manufacturing and packaging apparatus as recited in Claim 1,
wherein
said bend is formed upwardly convex.
4. The bag manufacturing and packaging apparatus as recited in Claim 1,
20 wherein
said feed roller unit imparts the bend in the transverse cross section of the strip
by forming a transverse cross section of the transport pathway into a bent shape.
5. The bag manufacturing and packaging apparatus as recited in Claim 4,
25 wherein
said feed roller unit includes a drive roller and a pressing roller that mates said
drive roller via their rotary surfaces;
one of the rotary surfaces of said drive roller and said pressing roller has a
convex surface; and
30 the other of the rotary surfaces of said drive roller and said pressing roller has
a concave surface corresponding to said convex surface.

6. The bag manufacturing and packaging apparatus as recited in Claim 5,
wherein

said one of said drive roller and said pressing roller that has the convex surface
has a rubber roller provided in a center part of said convex surface.

5

7. The bag manufacturing and packaging apparatus as recited Claim 1, further
comprising

a guide unit provided and arranged on the transport pathway of the strip
between said feed roller unit and said mounting unit, a transverse cross section of the
transport pathway of the strip in said guide unit being formed into a bent shape, such
that said guide unit imparts the bend in the transverse cross section of the strip.

10

8. The bag manufacturing and packaging apparatus as recited in Claim 7,
wherein

said guide unit further includes a cutter provided for forming a slit in the strip
in a direction approximately orthogonal to the direction of the transport pathway of
the strip.

15

9. The bag manufacturing and packaging apparatus as recited in Claim 8,
wherein:

20

said cutter forms a slit on the strip at a vicinity of an apex of the bend imparted
to the transverse cross section of the strip; and

said cutter passes through the strip from its concave surface side of the bend to
its convex surface side.

25

10. The bag manufacturing and packaging apparatus as recited in Claim 7,
wherein

said guide unit has a convex part that extends along the transport pathway of
the strip, and a concave part that is disposed opposite said convex part and

30

accommodates said convex part; and

the strip passes through a gap between said convex part and said concave part.

11. A bag manufacturing and packaging apparatus, comprising:

a bag manufacturing unit that manufactures a bag filled with articles;
a strip mounting unit disposed underneath said bag manufacturing unit for mounting the bag received from said bag manufacturing unit onto a strip; and
a strip transport unit disposed adjacent to said strip mounting unit for
5 transporting the strip to said strip mounting unit along a transport pathway, said strip transport unit having

a transport motor,
a drive roller rotated by said transport motor, and
a pressing roller provided above said drive roller for pressing the strip
10 against said drive roller, one of rotary surfaces of said drive roller and said pressing roller having a concave surface, while the other of the rotary surfaces of said drive roller and said pressing roller has a convex surface that corresponds to said concave surface.

15 12. The bag manufacturing and packaging apparatus as recited in Claim 11, wherein
said one of drive roller and pressing roller having said convex surface is approximately rugby ball shaped.

20 13. The bag manufacturing and packaging apparatus as recited in Claim 11, wherein
said drive roller has said convex surface.

25 14. The bag manufacturing and packaging apparatus as recited in Claim 11, wherein
said one of said drive roller and pressure roller that has said convex surface has a rubber roller provided in a center part of said convex surface.

30 15. The bag manufacturing and packaging apparatus as recited in Claim 11, further comprising
a guide unit provided and arranged on the transport pathway of the strip between said strip transport unit and said mounting unit, said guide unit having

an upper block,
a lower block, one of said upper block and lower block having a
convex part, while the other of said upper block and lower
block has a concave part, the strip being transported between
5 said convex part and concave part.

16. The bag manufacturing and packaging apparatus as recited in Claim 15,
wherein
said guide unit further includes a cutter provided for forming a slit in the strip
10 in a direction approximately orthogonal to the transport pathway of the strip.

17. The bag manufacturing and packaging apparatus as recited in Claim 16,
wherein:
said cutter is provided in said one of said upper and lower blocks having said
15 convex part, and
said cutter forms a slit on the strip at a vicinity of an apex of said convex part.

18. The bag manufacturing and packaging apparatus as recited in Claim 15,
wherein:
20 said lower block has said convex part.